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THE APORIAS OF DE ANIMA Γ 4, 429b22-430a9

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 March 27, 1987, San Francisco

In Book Γ of the De Anima Aristotle introduces the assumption that mind is, as described by Anaxagoras, "without mixture" (429a18),¹ later restating it in his own terms as the view that mind is simple and ἀπαθές and without anything in common with anything else (429b23-24). After discussing mind as a capacity of the soul in part on the basis of this view through much of our Chapter Four (429a18-b9), Aristotle proceeds to question whether the Anaxagorean Assumption ("AA"), when conjoined with other fundamental assumptions, permits a coherent account of mind (νοῦς) and thinking (νοεῖν). He states two aporias:

	ἀπορήσειε	22
δ' ἂν τις, εἰ ὁ νοῦς ἀπλοῦν ἐστὶ καὶ ἀπαθὲς καὶ μηθεὶν		
μηθεὶν ἔχει κοινόν, ὥσπερ φησὶν Ἀναξαγόρας, πῶς νοήσει, εἰ τὸ		
νοεῖν πάσχειν τί ἐστὶν (ἢ γὰρ τι κοινὸν ἀμφοῖν ὑπάρχει, τὸ		25
μὲν ποιεῖν δοκεῖ τὸ δὲ πάσχειν), ἔτι δ' εἰ νοητὸς καὶ αὐτός;		
ἢ γὰρ τοῖς ἄλλοις νοῦς ὑπάρξει, εἰ μὴ κατ' ἄλλο αὐτός		
νοητός, ἐν δὲ τι τὸ νοητὸν εἶδει, ἢ μεμιγμένον τι ἔξει, ὃ		
ποιεῖ νοητὸν αὐτὸν ὥσπερ τᾶλλα. (429b22-29) ²		29

In Hicks' translation:

The question might arise: assuming that the mind is something simple and impassive and, in the words of Anaxagoras, has nothing in common with anything else, how will it think, if to think is to be acted upon? For it is in so far as two things have something in common that the one of them is supposed to act and the other to be acted upon. Again, can mind itself be its own object? For then either its other objects will have mind in them, if it is not through something else... that mind is capable of being thought, and if to be so capable is everywhere specifically one and the same; or else the mind will have some ingredient in its composition which makes it, like the rest, an object of thought.³

How, Aristotle asks, will thinking be possible under the assumptions stated, and how can mind itself be an object of thought? He then states two important theses of his own: that while mind is its objects potentially it is nothing in actuality until thinking occurs (429b30-31) and that in the case of things without matter what thinks is the same as what is thought (430a3-4).

That Aristotle regards these theses as the key to resolving the aporias and that they do in fact permit a resolution of some sort, there is general agreement. As to the fate of the Anaxagorean assumption within the resolution, however, and hence as to the exact nature of the resolution itself, opinion is divided. After being defended early in the Twentieth Century by Rodier (1900) and Hicks (1907),⁴ Aristotle's commitment to the

¹ Cf. Anaxagoras fragment B 12 (DK) ... νοῦς... μέμικται οὐδενὶ χρήματι.... It is, of course, not the historical Anaxagoras but Aristotle's understanding of him (cf. esp. De An. A 2, 404a25-b6, 405a13-19, b11-23) which is of concern in the present context.

² I will use Ross's OCT text (Oxford, 1956).

³ Aristotle: De Anima, with translation, introduction and notes by R.D. Hicks (Cambridge, 1907), p. 133. After "if it is not through something else," Hicks inserts, by way of interpretation, "but of itself."

⁴ Aristotle: Traité de l'ame, traduit et annoté par G. Rodier, 2 vols. (Paris: Leroux, 1900), pp. 460-463; Hicks, pp. 494, 502.

Anaxagorean assumption has been questioned by Ross in his commentary on *Γ 4* (1961)⁵ and--for different reasons--by Michael Wedin in an important recent article (1986).⁶ In this paper, by addressing in turn the various arguments of Ross and Wedin against the AA, I will try to develop a position which incorporates their important insights into the aporia and resolution passages (429b22-29 and 429b29-430a9) and which is less vulnerable than those of Rodier and Hicks to Wedin's argument that Aristotle rejected the AA for potential mind (the *νοῦς δυνάμει* of 429b30-31). The discussion will be kept as close as possible to the text of *Γ 4*, although occasional detours into *Γ 5* and subsequent chapters will, of course, be unavoidable. While it is obvious that a short paper like this cannot contain a complete account of Aristotle's doctrine of mind in *De Anima* *Γ*, I should stress that I will not even try to give a full treatment of 429b22-430a9, one that addresses the many difficult questions raised by the positions Aristotle takes in the passage. Rather, I wish simply to argue for an additional constraint on any such account or treatment, that it recognize Aristotle's commitment to the AA for potential mind (429b30-31) as well as for actual mind, mind actually thinking (430a3-5).

S1. Ross's Case against the Anaxagorean Assumption

Ross contends that both of the aporias at 429b22-29 are directed against the AA. Using "reason" for *νοῦς* and "knowing" for *νοεῖν*, he summarizes the first aporia (b22-26) as follows:

A's first argument (11.24-26) aims at showing that reason, thought of as Anaxagoras thinks of it, cannot know anything. This it cannot, because knowing is a being acted on, and involves a community of nature between the knower and the known, while Anaxagoras says reason is not acted on, and has no community of nature with anything else.⁷

As Ross's paraphrase indicates, the first aporia may be analyzed into two strands, each of which provokes the question how thinking will be possible given both the AA and the thesis (P), introduced as one disjunct of an apodosis at 429a14, that to think is a case of *πάσχειν τι* ("being acted upon"). Thus we get two sub-problems:

- 1a. How will thinking be possible if mind is *ἀπαθές* (AA) but thinking is a case of *πάσχειν τι* (P)?
- 1b. How will thinking be possible if mind has nothing in common with anything else (AA) but thinking, as a case of being acted upon (P), involves something common both to what acts and to what is acted upon (Ross's "known" and "knower" respectively, cf. *πάσχειν τι ὑπὸ τοῦ νοητοῦ*, 429a14)?

In his comments on the resolution passage Ross says nothing about 1a. With regard to 1b, he construes 429b30-31 ("...mind is potentially in some way the objects of thought [*τὰ νοητά*]") as evidence for his view that aporia 1b aims at showing that under the AA mind cannot know anything:

One of Anaxagoras' assumptions was that reason has nothing in common with anything else (11.23-24). A. points out that in fact reason has something in common with its objects, being potentially what they are actually.⁸

However this argument has a serious weakness. In *De Anima* A Aristotle reads Anaxagoras as denying anything in common between mind and "other things" such as elements like fire or air (405b13-23), and after introducing the AA at the beginning of *Γ 4* he argues that mind cannot be "mixed" with body since if it were it could be qualified as cold or hot (429a24-26). Given the distinction made in the resolution of the second aporia between

⁵ Aristotle: *De Anima*, edited with introduction and commentary by W.D. Ross (Oxford, 1961), pp. 294-295.

⁶ Michael V. Wedin, "Tracking Aristotle's *Noûs*," in *Human Nature and Natural Knowledge*, ed. A. Donagan, A.N. Perovich, Jr., and M.V. Wedin (Dordrecht: Reidel, 1986), pp. 167-197, esp. pp. 183-185.

⁷ Ross, p. 294, italics removed.

⁸ *Ibid.*

things having matter (430a6) and things without matter (a3), elements and bodies clearly fall on the side of things having matter, which are only potential objects of thought (a6-7). On the other hand, it is only things without matter that are the actual objects of thought which mind is the same as when actually thinking (a3-4). Since τὰ νοητά at 429b30 cannot refer to the material potential objects of thought (on that reading 429b30-31 would imply that mind is potentially in some way a tree or a stone, which is absurd; cf. Γ 8, 431b26-29), it must refer to actual objects of thought without matter (430a3-4), i.e. essences or Aristotelian forms (8, 431b28). But on the latter reading the key ὅτι clause at 429b30-31 says only that mind prior to thinking ("potential mind") is potentially those immaterial forms which mind actually thinking ("actual mind") is the same as. Hence in the special sense of κοινόν τι adopted by Ross, following Hicks and Brentano (that two things have something in common when one is potentially what the other is actually, cf. B 5, 417b2-7), the ὅτι clause at 429b30-31 supports only the conclusion that there is something common between potential mind and the immaterial forms which actual mind is "the same" as, not the stronger conclusion that there is something common between potential mind and material objects "other" than mind which Aristotle sees Anaxagoras as having rejected (A 2, 405b21; cf. Γ 4, 429a20). Ross does not draw this stronger conclusion, but without it 429b30-31 does not show that under the AA mind "cannot know anything" (i.e. cannot think anything), as he maintains--only that it cannot think as actual νοητά anything other than those immaterial forms which it is the same as when it thinks. In other words, the possibility is open that Aristotle states aporia 1b not to discredit the AA but to call attention to a question which he feels Anaxagoras had failed to answer--How, under the AA, can thinking take place (A 2, 405b21; compare Γ 4, 429b24)?--a question which can be answered, he believes, only by appeal to his own theory of mind and thinking.

As with the first, Ross considers the second aporia to be a direct attack on the AA, though on different grounds: "A's second argument (11.26-29) aims at showing that reason, thought of as Anaxagoras thought of it, cannot be known."⁹ His interpretation is based on the logic of the second aporia, which has been analyzed in detail by Hicks as a reductio containing a destructive dilemma:

If νοῦς is νοητός, two alternative hypotheses are conceivable: it is νοητός either (1) καθ' αὐτόν, οὐ κατ' ἄλλο τι or (2) κατ' ἄλλο τι, οὐ καθ' αὐτόν. The first hypothesis, expanded in the clause b27 εἰ μὴ κατ' ἄλλο... 28 εἶδει leads to the conclusion of the lemma, "all νοητά will have νοῦς predicable of them," "all objects of thought will themselves think: cf. Plato, *Parm.* 132C ἐκ νοημάτων ἕκαστον εἶναι καὶ πάντα νοεῖν. Though A. does not say so, this result is paradoxical. The consequence to which the second hypothesis leads is contained in the clause b28 ἢ μεμειγμένον... 29 τᾶλλα, "νοῦς will have in it an admixture of something, alien to its own nature, which renders it νοητός "... In that case this something else, which makes mind [νοητός], must be regarded as a foreign admixture, and thus the condition laid down by Anaxagoras..., that mind is ἀμικτός, is violated.¹⁰

In order to establish that the aporia is intended to be resolved by repudiation of the AA, Ross must show that Aristotle accepts the "consequence to which the second hypothesis leads" (in Hicks' terminology), i.e. refuses to perform the modus tollens step in the second horn of the destructive dilemma, since any other way of blocking the aporia would fail to contradict the AA. In other words, Ross must find in the resolution of the second aporia some evidence that on Aristotle's own view mind will have in it a μεμειγμένον, "an admixture of something... alien to its own nature" (Hicks), i.e. in Ross's own terms, that mind "will have in it some element which makes it... [νοητός] just as other things are." Ross appears to find this evidence in Aristotle's key thesis that among things without matter what is thinking is the same as what is being thought (430a3-4):

A. turns now to the second of the questions raised in 429b22-29 (εἰ νοητὸς καὶ αὐτός). Reason is known, he says, just as its objects are known, since in the case of immaterial things that which knows and that which is known are the same. He does not explain this saying, but we must suppose him to

⁹ *Ibid.*

¹⁰ Hicks, p. 494.

mean that when one is really knowing, the nature of that which is being known is exactly reflected in the mind of the knower, his mind exercising no disturbing influence.¹¹

Thus the supposed *μεμιγμένον* in Aristotle's own account of mind, needed to establish the anti-AA reading of the second *aporia*, would seem to be the reflection "in the mind of the knower" of the nature of an actual object of thought.

It is important to note that Ross here is talking about actual mind, mind actually thinking an actual object of thought. Early in *Γ 4* Aristotle argues, in part on the basis of the AA, that, in order to be able to think all things without obtruding any (actual) nature of its own, potential mind must be nothing in actuality until it thinks (429a18-24). But in the resolution of the second *aporia*, Ross would have us believe, Aristotle argues against the AA that actual mind doesn't amount to much either, its job being solely to exercise "no disturbing influence" on the actual reflections of actual objects of thought "in the mind." This conception of actual mind as a sort of mirror in which other things are actually reflected is consistent with Ross's interpretation of the writing-tablet passage (429b31-430a2), which he construes to say that potential mind "... is like a blank tablet waiting to be written upon"¹² and which he takes as a possible "reminiscence" of the wax mold at *Theaetetus* 191C8.¹³ In each case mind is compared to what in Aristotelian terms can only be called a substrate: actual mind to a mirror "in" which there are actual reflections, potential mind to a wax tablet "waiting to be written upon."

There is, of course, a long-standing alternative interpretation of the writing-tablet passage at 429b31-430a2. The passage comes just after Aristotle has proposed that "the mind is potentially (*δυνάμει*) in some way the objects of thought but actually nothing (*ἐντελεχείᾳ οὐδέν*) until it thinks" (429b30-31). He then continues:

...δυνάμει δ' οὕτως ὥσπερ ἐν γραμματείᾳ ᾧ μὴθὲν κένυπαρχει ἐντελεχείᾳ γεγραμμένον. (429b31-430a2)¹⁴

Given Cornford's emendation to *δυνάμει*, which Ross accepts, the clause is an explication of the *δυνάμει* in the previous line and may be translated literally as follows:

...potentially in this way: as in a writing-tablet to which belongs nothing actually written.

However as Alexander first pointed out, and as many have pointed out since (notably Rodier, Hicks, and Hamlyn in this century),¹⁵ Aristotle would seem to be comparing potential mind not to the tablet itself, as Ross holds, but to what Alexander calls its aptitude (*ἐπιτηδεύσεως*) for being written on, its potential for having actual writing on it. Since Aristotle has just said that "the mind is potentially in some way the objects of thought but actually nothing until it thinks," what it is compared to must be nothing actually until the activity of writing takes place. The absence (but potential presence) of actual writing on the tablet (*τὸ τῆς πινακίδος ἄγραφον*) satisfies this

¹¹ Ross, p. 295.

¹² Ross, p. 41.

¹³ Ross, p. 295.

¹⁴ Ross's OCT text with his insertions marked.

¹⁵ Rodier, vol. II p. 457; Hicks, p. 496; *Aristotle's De Anima, Books II and III*, translated with notes by D.W. Hamlyn (Oxford, 1968), pp. 138-139.

condition; the blank tablet itself does not.¹⁶ (On this latter view the substrate compared to the writing tablet is the human animal itself, with a soul which provides not only the capacity to think--potential mind--but also the various perceptive capacities, such as memory, which supply the images "in" which actual mind thinks its objects; cf. *Γ* 7 431b2). Thus Ross's substrate view of potential mind depends on the less likely of two possible interpretations of the writing-tablet passage.

Similarly Ross's case against the AA based on the mirror analogy for actual mind depends on the reduction of Aristotle's stark Parmenidean dictum τὸ αὐτὸ ἐστὶ τὸ νοοῦν καὶ τὸ νοούμενον at 430a3-4 to the specious obviousness of the exact reflection view. (Wedin's far more interesting reading of the dictum will be considered in the next section.) Further, by treating the supposed reflection "in" actual mind of the actual object of thought as the μεμιγμένον of the second horn of the destructive dilemma at 429b27-29--the only way to generate a conflict with the AA--Ross must overlook the evidence at 430a6-9 that Aristotle himself resolves aporia II within the first horn of the dilemma. On Aristotle's own theory, things that have matter are only potential objects of thought (a6-7), so that to them mind will not belong (ὥστ' ἐκείνοις... οὐχ ὑπάρξει νοῦς, a7). For a large and important class of things "other" than mind, those having matter, Aristotle seems to be denying the implication of the first horn of the dilemma that if mind is νοητὸς μὴ κατ' ἄλλο, i.e., simply by virtue of mind's belonging to itself, then these other things will also be νοητά in exactly the same way, by virtue of mind's belonging to them (τοῖς ἄλλοις νοῦς ὑπάρξει, 429b27). In other words, at 430a7 Aristotle may very well be "breaking" the first horn of the destructive dilemma (denying its "if...then..." premise) for things having matter, so that the denial of the consequent as ludicrously false (mind does not belong, e.g., to frogs) cannot by what we today call *modus tollens* require the denial of the antecedent of the first horn, that (actual) mind is an object of thought καθ' αὐτόν (Hicks), i.e. μὴ κατ' ἄλλο (429b27).

Unlike his argument against the AA for potential mind based on aporia Ib, which fails under the correct reading of 429b30-31, Ross's argument against the AA for actual mind based on aporia II can be made to go through, but only at the triple cost of adopting a substrate model of actual as well as potential mind, of trivializing Aristotle's τὸ αὐτὸ at 430a3, and of overlooking the evidence of a6-9, to be developed further below, that Aristotle's own solution to aporia II is based on the first (μὴ κατ' ἄλλο) rather than the second (κατ' ἄλλο) horn of the aporia's central dilemma.

S2. Wedin's Case against the AA for Potential Mind

In *Γ* 5, after distinguishing the mind which becomes all things, presumably the potential mind of *Γ* 4, and the mind which makes all things, the so-called νοῦς ποιητικός or productive mind, Aristotle says of the latter that it is χωριστὸς καὶ ἀπαθὴς καὶ ἀμιγής (430a17-18).¹⁷ This clear affirmation of the AA for productive mind raises the question whether Aristotle may have restricted the assumption's application, keeping it for productive mind but abandoning it for potential mind. In the course of developing an interesting new interpretation of productive mind according to which it is identical with the actual mind of *Γ* 4 ("The central idea is that in producing an actual object of thought the mind also produces itself as an actual thing.")¹⁸ Michael Wedin has recently argued in passing for an affirmative answer to this question. Before turning to Wedin's arguments against

¹⁶ Alexander argues as follows, referring to potential mind as "material mind" (ὁ ὑλικὸς νοῦς): οὐδὲν ἄρα τῶν ὄντων ἐνεργεία ἐστὶν ὁ ὑλικὸς νοῦς, ἀλλὰ πάντα δυνάμει... ἐπιτηδειότης τις ἄρα μόνον ἐστὶν ὁ ὑλικὸς νοῦς πρὸς τὴν τῶν εἰδῶν ὑποδοχὴν ἐοικῶς πινακίδι ἀγράφῳ, μᾶλλον δὲ τῇ τῆς πινακίδος ἀγράφῳ, ἀλλ' οὐ τῇ πινακίδι αὐτῇ. αὐτὸ γὰρ τὸ γραμματεῖον ἤδη τι τῶν ὄντων ἐστίν. διὸ ἢ μὲν ψυχὴ καὶ τὸ ταύτην ἔχον εἴη μᾶλλον ἢ κατὰ τὸ γραμματεῖον, τὸ δὲ ἄγραφον ἐν αὐτῇ ὁ νοῦς ὁ ὑλικὸς λεγόμενος, ἢ ἐπιτηδειότης ἢ πρὸς τὸ ἐγγραφεῖναι. Alexander of Aphrodisias, *De Anima*, 84.21-22, 84.24-85.1. *Supplementum Aristotelicum*, Vol II, Part I, ed. Ivo Bruns (Berlin, 1887).

¹⁷ Up to this point I have used the neuter adjectival forms of *Γ* 4, 429b23 but will now shift back and forth freely between these and the masculine forms of *Γ* 5, 430a17-18.

¹⁸ Wedin, p. 172.

the AA for potential mind, however, I would like to take note of his brief but insightful analysis of Γ 4, 429b22–430a9.

According to Wedin, Aristotle resolves *aporia* Ib by distinguishing thinking from ordinary cases of being affected:

The problem [*aporia* Ib] was that, ordinarily, in cases of being affected two actual things are involved, a first thing that is affected and a second thing that causes the first to be affected. In the case of mind, however, there is only a single actual thing, for in any episode of thinking the mind is actually identical with the object that produces the thinking.... The problem of mind thinking itself [*aporia* II] submits to similar resolution: Since, in the case of things without matter, mind is identical with its object, it follows that in such cases mind thinks itself.¹⁹

Perception, for example, is in the present respect an ordinary case of being affected: the object of perception (τὸ αἰσθητόν) produces a change in one of the sense organs (αἰσθητήρια) embodying the perceptive capacity of the animal (τὸ αἰσθητικόν). Prior to the change the perceptive capacity is potentially "such" (οἷον, B 5, 418a4; B 11, 424a1) as the object of perception is actually. Upon perceiving, the αἰσθητικόν becomes "like" the αἰσθητόν and is now (actually) "such" as it (πεπονθὸς δ' ὁμοίωται καὶ ἔστιν οἷον ἐκεῖνο B 5, 418a5–6), but though sharing a single activity (Γ 2, 425b26–27) they remain two entities distinguishable by the matter in which they are embodied (cf. B 12, 424a18–19). In setting up *aporia* Ib, after explicitly stating the AA and the assumption that thinking is a case of πάσχειν, Aristotle adds the implicit assumption that here also what acts (produces) and what is acted upon are two distinct things (... ἀμφοῖν..., τὸ μὲν... τὸ δέ..., 429b25–26). He then resolves *aporia* Ib, as Wedin acutely observes, by denying exactly this implicit assumption at 430a3–4. Whereas in perception the αἰσθητικόν merely becomes "like" (ὅμοιον B 5, 417a20) the αἰσθητόν which produces (cf. B 5, 417b20; B 11, 424a1) the change in it, in the case of things without matter what thinks and what is being thought are the same (430a3–4). On this analysis, therefore, Aristotle resolves *aporia* Ib not by rejecting or restricting the AA but by weakening the supposed parallel between thinking and perceiving (Γ 4, 429a13–14, cf. Γ 3, 427a19–21).

Much the same holds for *aporia* II. Once again there is an implicit assumption based on the parallel with perception: that there will be objects of thought "other" than mind (τὰλλα, 429b30). If mind is an object of thought μὴ κατ' ἄλλο but simply by virtue of belonging to itself (the antecedent of the first horn of the dilemma) and these other things are objects of thought in exactly the same way as mind is, then mind will also belong to these other things (τοῖς ἄλλοις νοῦς ὑπάρξει, 429b27--the consequent of the first horn). In the previous section we have considered the possibility that for things having matter Aristotle "breaks" the first horn by affirming its antecedent (mind is an object of thought μὴ κατ' ἄλλο) and denying its consequent (mind does not belong to material things other than mind since they are not νοητά, only potential νοητά, 430a6–9). Wedin's analysis now permits us to see that Aristotle also "breaks" the first horn for things without matter, though for a different reason. In this case he denies the consequent (that mind will belong to things other than mind) not because the other things fail to be actual νοητά but because here there is no actual νοητόν "other" than (i.e. distinguishable by its matter from) actual mind thinking it: in the case of things without matter what thinks and what is thought are the same (430a3–4). Thus on Wedin's analysis Aristotle's τὸ αὐτό at a3 resolves *aporia* II as it does *aporia* Ib, not by rejecting or restricting the AA but by weakening the supposed parallel between thinking and perceiving.

Wedin's case against the AA is therefore different from Ross's in at least two ways. First, he believes that Aristotle rejected the AA only for potential mind. And second, he does not claim to find any support for this view in the *aporia* and resolution passages themselves. Indeed, as we have just seen, his analyses of *aporias* Ib and II show that Aristotle was able to resolve both of these puzzles without rejecting the AA for potential mind. Instead, Wedin (I) suggests on the basis of Γ 4, 429b5–9 that potential mind must undergo modifications and then (II) argues that the AA is incompatible with what Aristotle says about potential mind in Γ 5.

¹⁹ Wedin, p. 171.

The passage (1) at Γ 4, 429b5-9 applies to mind the important distinction made in B 5 between types or levels of potentiality and actuality. Aristotle customarily distinguishes between the possession of knowledge (level-1) and its exercise (level-2), e.g. at B 1, 412a22-23. But besides the knower in possession of grammar on level-1 and the knower actually thinking about grammar on level-2 there is also the human being, e.g. a child (cf. 417b31), who is a "knower" (level-0) only in the minimal sense that he or she belongs to a species whose members are capable of acquiring level-1 knowledge (B 5, 417a21-29). The persons at levels-0 and -1 are both only potential knowers (κατὰ δύναμιν ἐπιστήμονες, 417a30), but each is so in a different way: the level-0 potential knower merely belongs to the right species, whereas the level-1 potential knower is able to exercise knowledge at level-2 whenever he or she wants to unless something external interferes (a27-28). Aristotle then contrasts the different types of πάσχειν involved in the transition from level-0 to level-1 and that from level-1 to level-2. In the first transition there is a typical alteration (ἀλλοίωσις) involving the replacement of one member of a pair of opposites by another (417a31-32, b2-3) so that the thing undergoing the alteration, e.g. the child, changes from being unlike to being like (ὅμοιον) the agent or producer of the change, e.g. the schoolmaster, in the relevant respect, e.g. the ability to recognize the letter "A" (cf. 417a20, πᾶσχει μὲν γὰρ τὸ ἀνόμοιον, πεπονθὸς δ' ὅμοιόν ἐστι). In the transition from level-1 to level-2, on the other hand, there is a preservation of what is potential (i.e., the level-1 knower) by what is actual (the level-2 knower), "...a preservation...of [the] like (ὅμοιον) in this way as potentiality is related to actuality" (...σωτηρία...ὁμοίου οὕτως ὡς δύνάμεις ἔχει πρὸς ἐντελέχειαν, 417b4-5). The latter, Aristotle says, is either a different type of alteration or not an alteration at all since (if one may believe some MSS and most editors) it involves a development "into itself" (εἰς αὐτό) and into actuality (417b6-7).

The application of this to mind at Γ 4, 429b5-9 runs as follows:

ὅταν δ' οὕτως ἕκαστα γένηται ὡς ὁ ἐπιστήμων λέγεται ὁ κατ' ἐνέργειαν (τοῦτο δὲ συμβαίνει ὅταν δύνηται ἐνεργεῖν δι' αὐτοῦ) ἔστι μὲν καὶ τότε δυνάμει πως, οὐ μὴν ὁμοίως καὶ πρὶν μαθεῖν ἢ εὑρεῖν. καὶ αὐτὸς δὲ αὐτὸν τότε δύναται νοεῖν. (Ross: δι' αὐτοῦ)

(Since Wedin favors the δὲ αὐτόν of the MSS over Bywater's δι' αὐτοῦ²⁰ I will follow him here, as I don't believe that the status of the AA is tied to this particular textual issue.) Hicks translates:

But when the intellect has thus become everything in the sense in which one who actually is a [knower] is said to be so (which happens so soon as he can exercise his power of himself), even then it is still in one sense but a capacity: not, however, a capacity in the same sense as before it learned or discovered. And, moreover, at this stage intellect is capable of thinking itself.²¹

Hence comparable to the distinction between level-0 and level-1 potential knowers at B 5, 417a21-29 we now have a distinction between level-0 potential mind, prior to learning and discovery, and level-1 potential mind, after learning and discovery. As the passage makes clear, level-1 potential mind follows upon the level-2 exercise of actual thinking by actual mind: only when mind has become each (or, on Hicks' stronger reading of ἕκαστον, all) of the forms which it was potentially at level-0 (cf. 429a29, δυνάμει τὰ εἶδη) is it subsequently (καὶ τότε) in potential with respect to that form in the different manner of level-1 (δυνάμει πως, οὐ μὴν ὁμοίως). But if level-1 potential mind is different from level-0 potential mind, a change of some sort must have occurred as a result of learning or discovery. Hence the question arises: how is this change from level-0 potential mind to level-1 potential mind to be described? What kind of change is involved?

Wedin argues that the change must consist in "modifications" of potential mind ("receptive mind", in his terminology) due to learning and memory:

²⁰ Wedin, p. 170.

²¹ Hicks, pp. 131-133.

Note that it need not, indeed cannot, be implied that the mind is devoid of all modifications, particularly those connected with learning, memory, and the like. How else could the theoretical man come to contemplate this rather than that truth? The point rather is that while receptive mind is modified, such modifications are no part of its nature. Unlike the physical structures that partially define other faculties' natures these modifications in no way set boundary conditions on what the mind can do.²²

Wedin is undoubtedly correct that the nature of potential mind (to be capable of thinking, 429a21-22) does not change in the transition from level-0 to level-1 and hence that the change must consist in "modifications [which] are no part of its nature." But modifications fitting this description may be divided into two very different types according to whether they are modifications (a) of potential mind itself or (b) of the bodily organs of perception (with perception taken broadly to include κοινή αἴσθησις, φαντασία, and memory). On (a) we get what can only be called a substrate view of potential mind at least distantly related to Ross's: besides being receptive (429a15-16) of a single form at a time in the transition to actual mind actively thinking that form at level-2, in the transition from level-0 to level-1 potential mind itself also receives "modifications" (πάθη) which are "no part of its nature" (hence accidental to it) and which it can presumably lose when forgetting occurs. According to (b), which is consistent with Alexander's "aptitude" view of potential mind, the πάθη which constitute learning and the memory of νοητά are πάθη exclusively of bodily organs despite the fact that they are a necessary condition of potential mind being at level-1 rather than level-0 with respect to a given object of thought (i.e., in effect, a necessary condition of the thinker being able to think the object δι' αὐτοῦ rather than in some adventitious external object, 429b7, cf. 417a27-28). On (a) potential mind changes from level-0 to level-1 in the manner of a substrate acquiring πάθη under ἀλλοίωσις. On (b) potential mind changes only to actual mind at level-2 in the second (εἰς αὐτό) type of πάσχειν which Aristotle describes as either not an ἀλλοίωσις at all or a different type of ἀλλοίωσις (B 5, 417b6-7); here potential mind is subsequently at level-1 rather than level-0 only if, as a necessary condition, a concomitant accidental ἀλλοίωσις has occurred in the bodily substrate of memory and φαντασία. On (a), which I will call the substrate or complex conception, potential mind must be able to receive πάθη and hence cannot be ἀπαθές; so if Aristotle held the complex conception then he must have rejected the AA for potential mind. On (b), however, which I will call the simple conception of potential mind, the AA can apply to potential mind since the only πάθος involved resides in the bodily sense organs. (It is well to recall here that what is at issue is the applicability of the AA to mind [νοῦς], not to understanding [διάνοια]; insofar as the latter includes images [Γ 7, 431a14-15] it obviously requires a complex conception and is not governed by the AA.)

Wedin appears open to the simple conception (b) of potential mind when he discusses the passage (429a29-b5) in which Aristotle contrasts potential mind with the perceptive potential embodied in αἴσθητήρια: "For all other faculties there is something actual even when the faculty is not operative, namely, the particular physical structures over which they are defined. Notice that the mind may well depend on a complex of physical structures, say in virtue of its dependence on images, without being the actualization₁ [i.e., to level-1] of any such structures."²³ This would seem to imply that when potential mind is at level-1 the πάθη resulting from learning and discovery are actual only as πάθη of the organ(s) of memory. But Wedin appears to embrace the complex conception (a) of potential mind when he says that "receptive mind is modified" rather than that it is dependent on modifications of the αἴσθητήρια. Elsewhere he emphasizes the complexity of his conception of potential mind when he compares it to an information retrieval system awaiting a search:

The receptive mind may...be thought of as a kind of memory, not in Aristotle's sense, or a set of acquired thoughts or concepts and the producing [by νοῦς ποιητικός] may be thought of as a kind of retrieving or, to use Aristotle's metaphor, as a kind of illuminating of the object(s) of thought.²⁴

²² Wedin, p. 170.

²³ Wedin, p. 170.

²⁴ Michael V. Wedin, "Aristotle on the Mechanics of Thought" (Unpublished), p. 21. Subsequent references to Wedin are to "Tracking Aristotle's Noûs," *op. cit.*, not to this unpublished paper.

Wedin speaks here of an intellectual memory "not in Aristotle's sense" because, of course, Aristotle locates the memory squarely within the embodied perceptive capacity of the soul. The memory image is a πάθος belonging καθ' αὐτό to the κοινή αἴσθησις or πρῶτον αἰσθητικόν (*De Memoria* 1, 450a10-13) and only incidentally (κατὰ συμβεβηκός) to mind (τοῦ νοῦ, 13a, Ross's conjecture) or to what is actually thought in the remembered image (τοῦ νοουμένου, 13a, the reading of a large family of MSS). Objects of thought are never remembered without an image (a12-13) and then only incidentally; what is remembered καθ' αὐτό is the image itself (a23-25). Even in deliberate recollection, where mind is involved in the reasoning process that leads to a search for a certain image (2, 453a9-14), Aristotle is emphatic that the πάθος in which the image sought resides is something bodily (...ἐστὶ σωματικόν τι τὸ πάθος, 453a14-15).

In his own theory of memory, therefore, Aristotle protects the simple conception of mind (b), according to which the substrate of the πάθος of memory is the bodily sense organ, not potential mind. To the extent that the πάθος of memory belongs κατὰ συμβεβηκός to potential mind, however, then there is at least a relational change in the latter sufficient to make potential mind at level-1 dissimilar to potential mind at level-0 (ἐστὶ μὲν καὶ τότε δυνάμει πως, οὐ μὴν ὁμοίως..., 429b8). In other words, the complex conception (a) of potential mind is wrong inasmuch as it treats potential mind itself as the substrate of πάθος. On the simple conception (b) potential mind itself is ἀπαθές but there is a sense in which it "is modified" relationally or incidentally when the πάθος of memory, whose substrate is a bodily organ or organs, undergo ἀλλοίωσις. The plausibility of this simple conception (b) can be seen if we make a rough analogy between the ability to think (i.e., potential mind) and the ability to play the lyre. Just as no human being can actually think without an image (Γ 7, 431a16-17, b2, cf. Γ 8, 432a12-14), so no one can actually play the lyre without a properly strung lyre. Putting strings in one's lyre is a modification or alteration (ἀλλοίωσις) of the lyre, not of the ability to play the lyre, and yet there is an interesting dissimilarity between saying of someone that he or she is able to play the lyre before (level-0) and after (level-1) strings have been put in the lyre. Likewise in the case of mind the alteration or modification due to learning or discovery occurs in the bodily organ(s) of memory, but as a result mind at level-1, after learning, is interestingly dissimilar to mind at level-0.

It is potential mind in this respect, as incidentally changed by learning and memory, which Wedin correctly describes as "modified" and "a kind of memory, not in Aristotle's sense...." In other words, to the extent that he adopts a complex conception (a) of potential mind inconsistent with the AA, Wedin is wrong. But on the other hand, to the extent that he merely describes the incidental change in potential mind which is consistent with the simple conception of potential mind (b) and with the AA, Wedin's talk of potential mind as "modified" is faithful to Γ 4, 429b5-9.

Wedin's explicit argument against the AA for potential mind (II) is based on Γ 5, to which we may now turn. At Γ 5, 430a17-19, Aristotle clearly affirms the AA for productive mind, as follows:

καὶ οὗτος ὁ νοῦς χωριστός καὶ ἀπαθὴς καὶ ἀμιγής, τῇ οὐσίᾳ ὦν ἐνέργεια. ἀεὶ γὰρ τιμιώτερον τὸ ποιοῦν τοῦ πάσχοντος καὶ ἡ ἀρχὴ τῆς ὕλης.

Wedin translates, lettering the various characteristics for ease of reference:

And this mind is (a) separate... and (b) not capable of being affected... and (c) unmixed... since (d) in its being it is activity, for (e) what acts is always superior to what is acted upon and the principle to the matter.²⁵

Acknowledging that characteristics a, b, and c are discussed in Γ 4, a chapter largely concerned with potential mind, Wedin nevertheless argues against the view that a, b, and c (and hence the AA) apply to potential mind (receptive mind, in his terminology):

²⁵ Wedin, p. 182.

...the fact that Γ 4 has already listed α , β , and γ among the mind's characteristics... has inclined a number of commentators toward the view that both receptive and productive mind are separate, unaffected, and unmixed and that they differ just on the point mentioned in δ , that productive mind is, additionally, activity. Unfortunately, problems arise here. First, the view overlooks the fact that δ is given not just as another, even if distinguishing, feature of productive mind but rather as the reason for productive mind being separate, unaffected, and unmixed. Second, Γ 5 certainly appears to deny of receptive mind just these features so how can Γ 4 be supposed to attribute them to it? Finally, there is Γ 5's assertion that receptive mind is perishable. If, as Brentano thought, α , β , and γ characterized items are eternal (a somewhat dubious proposition), then Γ 4's mind could hardly be the same as Γ 5's receptive mind. Brentano's rather drastic solution was to deny that the mind that becomes all things, what he called the "*aufnehmende Vernunft*" and took to be the subject of Γ 4, is the same as that which is said to be perishable. Our solution would be to deny that Γ 4 intends in the first place to limit itself to receptive mind. Rather the subject of Γ 4 is simply the individual mind of the ordinary person and Γ 5 provides a (partial) account of how it must be organized to function in the way it does. So the reason that individual mind is separate, unaffected, and unmixed will be that productive mind has these characteristics.²⁶

Wedin finds three problems in the view (e.g. of Rodier and Hicks) that the AA applies to the potential ("receptive") mind as well as to actual and productive mind, all of them solved, he suggests by his reinterpretation of Γ 4.

The first problem, according to Wedin, is that Rodier and Hicks fail to treat δ as "the reason for productive mind being separate, unaffected, and unmixed." But it is not clear why this is a problem rather than a result of their adoption of an equally plausible reading of the ambiguous participial phrase at 430a18. Rodier and Ross read δ not as an explanation of why productive mind has characteristics α , β , and γ but as part of an argument for the conclusion that it does in fact have these characteristics: "Here these predicates are claimed for [productive mind], and the clause $\alpha\epsilon\iota\ \gamma\alpha\rho\ \tau\iota\mu\iota\omega\tau\epsilon\rho\omicron\nu$... certainly suggests that the [mind] to which they were ascribed in c.4 is the [potential mind], and that a fortiori they belong to the [productive mind] which, as cause and activity, stands higher in the scale of logical priority."²⁷ In other words, having proved the difficult case in Γ 4, that α , β , and γ apply to potential mind, Aristotle now saves himself a long digression by arguing that α , β , and γ must also belong to productive mind since, being in its very essence the activity of thinking (δ) for which the former is merely the potential, it is more worthy to possess these important characteristics (α). Thus the only real issue here is whether Γ 4 ascribes α , β , and γ to potential mind. If it does not, then Rodier and Hicks are reading 430a17-19 as an unsound argument with a false implicit premise; if it does, then Wedin is wrong and the AA applies to potential mind.

Wedin claims that Γ 4 applies the adjectives $\chi\omega\rho\iota\sigma\tau\acute{o}\varsigma$ (α) and $\alpha\pi\alpha\theta\acute{\eta}\varsigma$ (β) and $\alpha\mu\iota\gamma\acute{\eta}\varsigma$ (γ) not to potential mind but to "the individual mind of the ordinary person." It is not clear what is to be made of this distinction, since potential mind is presumably just the capacity of an individual human being to think. However even if we grant Wedin's contention that "...the subject of Γ 4 is simply the individual mind of the ordinary person and Γ 5 provides a (partial) account of how it must be organized [into productive and potential aspects]...",²⁸ it does not follow that Aristotle wishes to exclude the potential aspect of mental organization from the force of his own statements in Γ 4. Indeed, such a claim does not square with the text. At 429a15-16 Aristotle says in one breath that mind must be $\alpha\pi\alpha\theta\acute{\eta}\varsigma$ but also "receptive" of form; it is difficult to believe that he would not want the word $\alpha\pi\alpha\theta\acute{\eta}\varsigma$ here to be applied to what Wedin calls "receptive mind," i.e. potential mind. And at 429a24-25 Aristotle says that the mind which is nothing in actuality until it thinks should not be regarded as "mixed" with body, picking up the $\alpha\nu\acute{\alpha}\gamma\kappa\eta\ \alpha\mu\iota\gamma\acute{\eta}\ \epsilon\iota\tau\alpha\iota$ just above at 429a18. And finally the conclusion that mind is $\chi\omega\rho\iota\sigma\tau\acute{o}\varsigma$ at 429b5 is based on an argument contrasting the perceptive capacity of the soul resident in bodily organs of

²⁶ Wedin, pp. 183-184.

²⁷ Hicks, p. 502, cf. Rodier, p. 462.

²⁸ Wedin, p. 184.

perception (429a29-b5) with the mind that is "potentially the forms" (429a29) but lacks any such organ (a27). Thus the applicability of the AA to potential mind is textually secure in Γ 4.

According to Wedin's second problem, however, "... Γ 5... appears to deny of receptive mind just these features..." which Γ 4 is supposed to attribute" to it. Wedin does not expand on this second problem for any of the three features a, b, and c, but if δ παθητικὸς νοῦς at Γ 5, 430a24-25 is identified with the potential mind of Γ 4 then Aristotle's use of the adjective παθητικός might be taken as evidence that he rejected the thesis that potential mind is ἀπαθές (b). This in turn raises the issue of aporia 1a, which has remained in the background up until now:

- 1a How will thinking be possible if (potential) mind is ἀπαθές (AA) but thinking is a case of πάσχειν τι (P)?

As long as ἀπαθές is taken to mean "unaffected" or "impassible" (i.e. incapable of πάσχειν) then aporia 1a demands abandonment of the AA for potential mind. But is this in fact what ἀπαθές means in Γ 4? As Rodier notes,²⁹ from the assumption that thinking is a πάσχειν τι (P) or something along the same lines (τι τοιοῦτον ἕτερον), Aristotle in fact infers that mind must then be ἀπαθές (ἀπαθὲς ἀρὰ δέῃ εἶναι, 429a14-15), i.e. that in order to be able to think all things (a18) potential mind not only must lack any nature of its own beyond the sheer ability to think (a21-22) but also must be without prior qualification (ποιός τις, a25). So it is clear that in the context of its application to potential mind in Γ 4 ἀπαθές (a15) must mean not "unaffected", "incapable of πάσχειν," but rather "unaffected", "without πάθος." Likewise ἀπάθεια at 429a29 should be translated "freedom from πάθος" rather than "impassibility." In arguing that the ἀπάθεια of the perceptive capacity and the ἀπάθεια of the noetic capacity (i.e. potential mind) are dissimilar, Aristotle says that one cannot hear well after hearing loud noises whereas one can think even better after thinking a highly intelligible object (429a31-b4). The reason, clearly, is that the organ (a30) of hearing retains the πάθος of the loud noise and so is unable to take on the lesser πάθος of a barely audible sound, whereas potential mind has no bodily organ (a27) to receive such a πάθος inasmuch as, under the AA, it is not correctly said to be mixed with body (...οὐδὲ μεμίχθαι εὐλογον αὐτὸν τῷ σώματι, a25). Thus aporia 1a is easily resolved and, once again, Aristotle's commitment to the AA for potential mind in Γ 4 is clear.

But what then are we to make of Aristotle's statement at the end of Γ 5 that δ παθητικὸς νοῦς is perishable (430a23-25)? If (1) δ παθητικὸς νοῦς is identical with the potential mind (Γ 4, 429a22-29, b30-31; cf. Γ 5, 430a11) which "becomes all things" (Γ 5, 430a14-15, cf. Γ 4, 429a18) and (2) potential mind is ἀπαθές (Γ 4, 429a15, a29-30), then (3) how can mind as referred to at Γ 5, 430a24-25 be παθητικός? (This is our distilled version of the second problem posed by Wedin to the defenders of the AA for potential mind.) And again, if (1) holds as above and (2') potential mind is separable (Γ 4, 429b5--presumably χωριστὸν λόγῳ) and unmixed with body (Γ 4, 429a24-25) then (3') how can δ παθητικὸς νοῦς be φθαρτός (Wedin's third problem)? Following Averroes,³⁰ Brentano proposes to cut the Gordian knot by denying (1) and identifying δ παθητικὸς νοῦς with imagination rather than with potential mind.³¹ In other words, the AA covers potential

²⁹ Rodier, p. 461.

³⁰ Cf. Arthur Hyman, "Averroes as Commentator on Aristotle's Theory of the Intellect," in *Studies in Aristotle*, ed. D.J. O'Meara (Washington, D.C., 1981), pp. 161-192, esp. pp. 173, 183-184.

³¹ Franz Brentano, *The Psychology of Aristotle* (1867) edited and translated by Rolf George (Berkeley, 1977), p. 141: "But what, in our view, is the mental faculty that is capable of being affected [$\nu\acute{o}\upsilon\varsigma$ παθητικός]? It is the imagination which, as a sensory faculty according to chapter 4 [429a29] does not partake in the impassibility... of the receptive intellect; for this reason book I of the *Politics* contrasts the sensory part as the "part that can be affected" [$\nu\acute{o}\upsilon\varsigma$ παθητικὸν μόριον] with the intellectual part [A5, 1254b8]."

mind but not ὁ παθητικὸς νοῦς. It is not clear why Wedin calls this solution "drastic",³² unless perhaps he believes that it stretches the word νοῦς far beyond Aristotle's usually more narrow usage.³³ Rodier and Hicks, on the other hand, affirm (1), (2), and (2') and attempt to resolve the problems by refusing to concede any real conflict between (2) and (3) or between (2') and (3').³⁴ They thus extend Aristotle's commitment to the AA from potential mind to the νοῦς described as παθητικὸς and φθαρτός, which they take to be identical to it by (1). But in doing so they are open to the charge of forcing the sense of 430a23-25 (οὐ μνημονεύομεν δὲ, ὅτι τοῦτο [presumably νοῦς ποιητικὸς] μὲν ἀπαθές, ὁ δὲ παθητικὸς νοῦς φθαρτός). Whatever Aristotle may mean by ὁ παθητικὸς νοῦς, the μὲν... δὲ... construction makes it difficult to believe that he considers it ἀπαθές. Wedin's own solution is to deny (2) and (2') and reject the AA for potential mind, but he must then force the sense of Γ 4, 429a15-16 (ἀπαθὲς ἄρα δεῖ εἶναι, δεκτικὸν δὲ τοῦ εἶδους...) in order to insist that ἀπαθὲς there does not apply to what he calls receptive mind.

Given these textual objections to the various positions considered, it may not be remiss to propose, after the manner of *Republic* IV, 432de, that we have had the answer concerning νοῦς παθητικὸς on hand all along without recognizing it. At the end of the long discussion of Γ 4, 429b5-9 we reached the conclusion that Aristotle holds to a simple conception of potential mind (consistent with the AA) according to which the memory image is a πάθος of the bodily organ(s) underlying the κοινὴ αἴσθησις rather than of potential mind itself but that he nevertheless recognizes a secondary incidental sense in which potential mind at level-1 differs from potential mind at level-0 (429b8) when there has been an ἀλλοίωσις (change of πάθος) in memory due to learning or discovery. Perhaps by ὁ παθητικὸς νοῦς at 430a24 Aristotle means neither potential mind itself (the pure and simple capacity to think which is nothing in actuality at either level-0 or level-1 prior to the occurrence of actual thinking at level-2 (Γ 4, 429a24, b30-31) nor the perceptive capacity of imagination but rather potential mind as incidentally at level-1 rather than level-0 with respect to a given object of thought (the μνημονευτὸν κατὰ συμβεβηκός of *De Memoria* 1, 450a25) due to there being in memory a πάθος constituting an image (the μνημονευτὸν καθ' αὐτό, a24) of some appropriate sort. Since the existence of an actual πάθος in memory is essential to potential mind's being at level-1 rather than level-0 (though not, of course, to potential mind itself), ὁ παθητικὸς νοῦς will not be without πάθος and hence the AA will fail to hold for it. But for the potential mind of Γ 4--the simple capacity to think which is nothing in actuality at either level-0 or level-1 (429a24, b31) yet potentially any of the immaterial forms (429a29, b30) which actual mind is the same as when thinking at level-2 (430a3-4)--for mind in this important sense, the AA will hold.³⁵

³² Wedin, p. 183.

³³ Brentano (p. 141) seems to have anticipated this objection: "That the imagination, though it belongs to the sensitive part, should be called νοῦς is in no way remarkable. In the *Nicomachean Ethics* Aristotle once called sensation... itself νοῦς [Z 12, 1143b4]. But imagination he often counts with thinking... as, for example, in chapter 3 of *De Anima* 3 [427b27], and calls it νοῦς and a kind of knowledge [νόησις], as, for example, in chapter 10 of the same book. 'But it appears,' as he says there, 'that one of these two is the source of movement, either the desire or thinking (νοῦς), if indeed one regards imagination as a kind of thought (ὡς νόησιν τινα) and comprehends it under that name [433a9-10].'"

³⁴ Rodier, p. 461; Hicks, pp. 508-509.

³⁵ I wish to express my gratitude to Michael Wedin for giving me a copy of his unpublished paper "Aristotle and the Mechanics of Thought" and otherwise graciously accepting the role of attackee; and, especially, to Henry Mendell for many helpful conversations and several patient applications of maieutic. Agreement with the views expressed above, however, should not be imputed to either of them.